PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number
S895.12-0105

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On _____

Signature _____

Typed or printed name _____

Application Number	Filed
10/701,994	11/05/2003

First Named Inventor
Michael Mallary

Art Unit	Examiner
2627	Blouin, Mark S.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☒ attorney or agent of record.
Registration number 62,668.

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34

/Nathaniel P. Longley/
Signature

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05/06/2009
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor	:	Michael Mallary	
Appln. No.	:	10/701,994	Confirmation No.: 6624
Filed	:	November 5, 2003	Group Art Unit: 2627
Title	:	SHIELDED POLE WRITER UNDER READER	Examiner: Mark S. Blouin
Docket No.	:	S895.12-0105	

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop **AF**
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

FILED VIA EFS-WEB

INTRODUCTION

This Pre-Appeal Brief Request for Review follows the final Office Action mailed February 6, 2009 and the Advisory Action dated April 17, 2009. No amendments are made with this Request. A Notice of Appeal and appropriate fees are enclosed.

REMARKS

In the final Office Action mailed February 6, 2009, claims 1, 2, 8–13, 17, 18, 30–35 and 39–42 were rejected under 35 U.S.C. § 103(a) as obvious over Sato et al., Appl. No. 10/097,566, Pub. No. 2002/0135937 (Sato) (now U.S. Patent No. 6,728,064), in view of Shukh et al., Appl. No. 10/113,988, Pub. No. 2002/0176214 (Shukh) (now U.S. Patent No. 6,954,340).

The rejection is based on factual error and lacks at least one required element to establish prima facie obviousness under 35 U.S.C. § 103(a). Claims 1, 2, 8–13, 17, 18, 30–35 and 39–42 are in condition for allowance, and previously withdrawn claims 3–7, 14–16 and 36–38 are allowable as dependent on patentable base claims 1 and 30. The application is thus allowable on existing claims 1–18 and 30–42, and a finding to that effect is requested.

In each of independent claims 1, 12, 30 and 34, Applicants claim a read/write head having a substrate and a write element formed adjacent or proximate the substrate. (Application, claims 1, 12, 30 34.) In rejecting these claims, the Office Action relies on the identification of reference 17 of Sato as a substrate (see Office Action, ¶¶ 2, 10, 11 (referring to "substrate (17)"), but this is a factual error because Sato teaches that reference 17 is a top protective layer, not a substrate, and that substrate 1 is a substrate, not protective layer 17. See, e.g., Sato, ¶ 83 ("The thin-film magnetic head further comprises a protective layer 17"); ¶ 72 ("a substrate 1 made of a ceramic material such as aluminum oxide and titanium carbide (Al_2O_3TiC)"); see also ¶¶ 133, 134, 151, 106, 161, 174, 186. Because the final rejection is based on a factual error, a finding that the Application is allowed on the existing claims is in order.

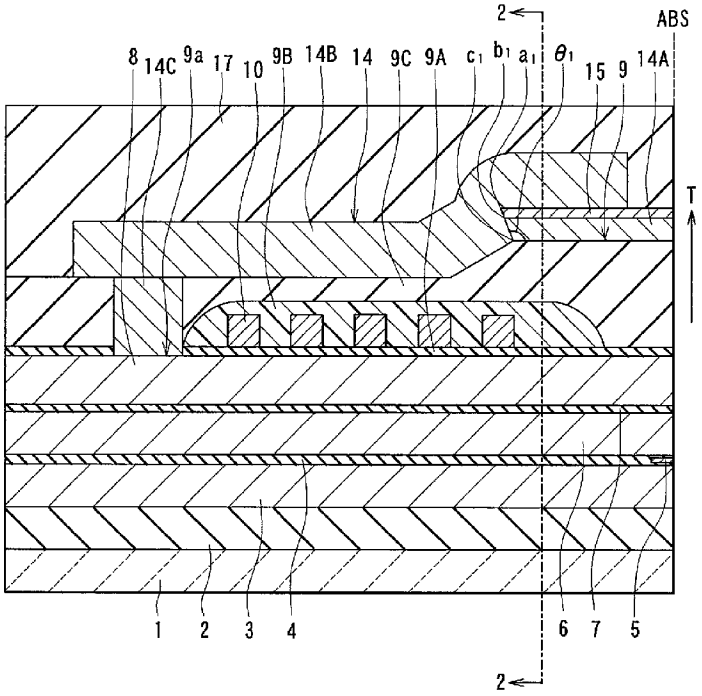

FIG. 1 of Sato

FIG. 1 of Sato (reproduced above) shows that Sato's teachings of substrate 1 and protective layer 17 are consistent with the plain meanings of the terms as known in the art of thin film semiconductor electronics. Compare, e.g., Sato, ¶¶ 72–83, 132–149 (describing the formation of read/write head layers on substrate 1, covered by protective layer 17) to Amendment filed April 6,

2009, p. 10 (citing definition of substrate in thin film electronics, "the material upon which semiconductor devices are fabricated"). The Office Action's interpretation, on the other hand, contradicts Sato and is inconsistent with the plain-language meaning of the terms substrate and protective layer, because protective layer 17 is a thin layer or coating for protecting the head, not a substrate on which the head is built. (See Amendment, p. 11 (citing definition of coating, "a thin layer or covering").)

In addition, there is no prima facie case of obviousness because neither Sato nor Shukh teaches or suggests the limitations of Applicants' claims. M.P.E.P. § 2143.03 ("All Claim Limitations Must Be Considered") (citations omitted). With respect to claims 1 and 12, for example, Applicants claim a write element formed adjacent a substrate and a read element formed on an opposite side of the write element from the substrate. Sato, in contrast, teaches that the *read* element is formed adjacent substrate 1, and that the *write element* is formed on the opposite side of the read element from the substrate (compare, e.g., FIG. 1 of Sato, above, to Office Action, ¶¶ 2, 4, 10, 11 (referring to write pole/yoke layers 14A–14C and MR read sensor 5)). Shukh, for its part, does not disclose a substrate, and does not teach a write element formed adjacent a substrate with a read element formed opposite the write element from the substrate, as claimed by Applicants.

Similarly, in claims 30 and 34 Applicants point out that a write shield is located opposite a write pole from the substrate, with a first read shield opposite the write shield from the substrate, a second read shield opposite the first read shield from the substrate, and a magnetoresistive (MR) sensor located between the first and second read shields, where a distance between a tip of the write pole and the substrate is less than the distances between the write shield and the substrate, the first read shield and the substrate, and the second read shield and the substrate. Sato, in contrast, teaches that write pole 14 is opposite the write shield (magnetic layer 8) from substrate 1, and opposite read shields 3 and 6 from substrate 1, and that the distance between write pole tip 14A and substrate 1 is *greater than* the distance from the write shield (magnetic layer 8) to substrate 1, and *greater than* the distances from read shields 3 and 6 to substrate 1.

Shukh, on the other hand, discloses only an isolated read/write head, without showing any particular relationship to the substrate. In particular, Shukh does not teach the claimed

configuration of a write shield, a write pole, an MR sensor and first and second read shields with respect to a substrate, and Shukh does not teach the particular distance relationships claimed in claims 30 and 34. Thus there is no prima facie case of obviousness under 35 U.S.C. § 103(a).

The references also teach away from the proposed combination, and from Applicants' invention as claimed. In particular, it would not have been obvious to arrange Sato as taught by Shukh "in order to accurately reproduce and record data," as suggested by the Office Action, because Sato teaches that linear recording density is improved by the particular structure of FIG. 1, and the proposed combination would make these improvements impossible. Specifically, Sato teaches that the linear recording density is improved by repeated steps of exposing, polishing, and flattening the elements of write pole 14A, just prior to applying top protective layer 17 and cutting the substrate into individual sliders. Sato, ¶¶ 126, 137, 138, 151, 154, 155, 163, 186, 192. These steps would not be possible if Sato formed the write elements adjacent or proximate the substrate and under the MR sensor, as claimed in Applicants' claims, so the proposed modification is not obvious under 35 U.S.C. § 103(a). See also M.P.E.P § 2143.01 (modification cannot render the prior art unsatisfactory for its intended purpose, or change its principle of operation).

With respect to the trailing edge limitation recited in claims 1, 12, 30 and 34, Sato teaches that the magnetoresistive sensor is located between the write pole and the substrate, not between the write pole and the trailing edge, as Applicants claim. Moreover, while the Office Action relies on Shukh for the suggestion that "the media motion can travel in both directions" (Office Action, ¶ 2), Sato teaches that the direction of media motion is from MR sensor 5 toward write pole 14A, not "in both directions," and in fact Sato would not function if the direction were reversed (i.e., the head would not fly).

The Office Action provides no evidence to overcome this teaching away, so the proposed modification is not obvious under 35 U.S.C. § 103(a). Moreover, where Applicants point out that the read head comprises two read shields and a write shield (claims 8, 12, 30, 34), Shukh teaches the *same* direction of media motion as Sato, not a different direction, as suggested by the Office Action. See Shukh, FIGS. 14, 15. See M.P.E.P. § 2141.02 (prior art must be considered in its entirety, including portions that lead away from claimed invention).

In claims 12, 30 and 34, finally, Applicants point out that a distance from the write pole to the soft underlayer (D) is between half a distance from the write shield to the write pole (1/2 G) and twice the distance from the write shield to the write pole (2G). Shukh, in contrast, teaches that "the distance G is not less than twice the distance D" (Shukh, ¶ 29), and, in the configuration of at least claims 8, 12, 30 and 34, that "the distance G of [trailing] write gap 33 is more than four times the distance D." See Shukh, ¶¶ 32, 34. Thus there is no prima facie case of obviousness, and the claims are allowable under 35 U.S.C. § 103(a).

The rejection of claims 1, 2, 8–13, 17, 18, 30–35 and 39–42 is based on factual error, and lacks at least one element required for prima facie obviousness. Rather than clearly articulating the reason(s) why the claimed invention would have been obvious (see M.P.E.P. § 2142), the Office Action merely picks and chooses elements to reconstruct the invention as claimed, based on information gleaned from Applicants' own disclosure, while ignoring the contradictory teachings of the prior art. See M.P.E.P. §§ 2142, 2145 *K.S.R. Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007) ("A factfinder should be aware, of course, of the distortion caused by hindsight bias.").

Claims 1, 2, 8–13, 17, 18, 30–35 and 39–42 are allowable under 35 U.S.C. § 103(a). In addition, withdrawn claims 3–7, 14–16 and 36–38 are patentable as dependent on claims 1 and 30, and a finding of allowance is requested for each of existing claims 1–18 and 30–42. The Commissioner is authorized to charge any additional fees associated with this paper, or credit any overpayment, to Deposit Account No. 11-0982.

Respectfully submitted,

KINNEY & LANGE, P.A.

Date: May 6, 2009 By: /Nathaniel P. Longley/

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